

vertex, margins and carinations to pro- and mesonota, lateral margins of abdomen above, body beneath, and legs ochraceous; tegmina semi-opaque, greyish white, margins very narrowly, and the stigma ochraceous, an oblique basal fascia, a transverse spot in costal area, an irregular spot in clavus, a broad transverse fascia before middle, irregular subapical suffusions, a central transverse spot near apex and the apical margin fuscous, the broad transverse fascia contains two small pale spots, and the apices of the apical veins are distinctly ochraceous; wings pale subhyaline with the venation fuscous; tegmina with the costal margin near base slightly sinuate; face elongate, much narrowed between the eyes.

Long., excl. tegm., 5 mm.; exp. tegm. 17 mm.

*Hab.* Ceylon; Pattipola (*Green*, Brit. Mus.).

Allied to the previous species, *B. variolosa*, by the less sinuate costal margin near base.

[It may be well to state that I have transferred my entire entomological collections to the British Museum, and that the whole of my types—excluding those located elsewhere—are now contained in that institution.]

LXXXVI.—Notes on the Family Masaridae (*Hymenoptera*),  
with Descriptions of a new Genus and Three new Species.

By GEOFFREY MEADE-WALDO, M.A.

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THE recent acquisition of three new species of these rare wasps is a matter for congratulation. Of the twenty-one species hitherto described in this genus the British Museum possesses nineteen, in each instance the type specimens. The remaining two species are in the Paris Museum.

The rarity of these insects is shown by the fact that such diligent collectors as Mr. R. E. Turner and his brother, the late Gilbert Turner, could only collect one specimen during a twenty years' residence in North Queensland, while Dr. Perkins, to whom the Museum is indebted for the species described below, has only received three specimens from Mr. F. P. Dodd at long intervals.

The three specimens received from Dr. Perkins are referable to three different species.

In presenting the specimens Dr. Perkins pointed out striking structural differences separating one of the specimens from the other two; these differences entirely justify the erection of a new genus, *Metaparagia*, into which two previously described species, e. g. *Paragia pictifrons*, Smith, and *P. maculata*, M.-Waldo, must be transferred. The presence of mesonotal furrows in *Paragia* is not mentioned by Saussure, and by Smith only in the description of *P. tricolor*. Dalla Torre makes no mention of this character in his diagnosis of *Paragia* ('Genera Insectorum,' Vespidae, p. 4).

METAPARAGIA, gen. nov.

*Paragia* similis, sed differt oculis distincte emarginatis: mesonoto sulcis longitudinalibus nullis.

Type, *Paragia pictifrons*, Smith.

*Metaparagia doddi*, sp. n.

♀. Niger; clypeo, mandibulis (apice excepto), scapo, fascia vertice, sinuque orbitali, macula postoculari, pronoto antice et postice, maculis subquadratis pleuris, macula media lineolisque duabus postice mesonoto, tegulis, scutello postice, angulisque lateralibus segmento mediano, flavis; segmento abdominali primo late postice, segmento secundo macula quadrata margine postico, segmento tertio dorsali late et ventrali omnino, segmentis quarto et quinto postice et segmento sexto omnino, flavo fasciatis; pedibus flavis; alis pallide fuscis.

Clypeus truncate, rather broader than long; inner orbits with a distinct emargination; pronotum rounded anteriorly, median segment truncate, lateral angles subtuberculate; abdomen elongate-ovate, first abdominal segment rounded basally and not constricted apically.

Punctured, the head and thorax (especially the disc of the mesonotum) coarsely, clypeus and abdomen more finely. A sparse pale pubescence on the vertex of head, median segment, and abdomen.

Length 9 mm. (to apex of second abdominal segment).

*Hab.* Cairns, N. Queensland (*F. P. Dodd*); 1 ♀.

Very near to *Metaparagia pictifrons*, Sm., from which it differs chiefly in the colour-pattern. The totally yellow clypeus, together with the yellow spots on the disc of the mesonotum and the second abdominal segment, should serve to separate the species at a glance.

Key to the Species of *Metaparagia*.

- A. First abdominal segment strongly constricted at apex, and first recurrent nervure interstitial with first transverse cubital nervure. . . . . *maculata*, M.-Waldo.
- B. First abdominal segment without constriction, both recurrent nervures received by second cubital cell.
- a. Clypeus and mandibles totally yellow . . . . . *doddi*, sp. n.
- b. Clypeus black, with two small yellow spots at base; mandibles ferruginous . . . . . *pictifrons*, Smith.

## PARAGIA, Shuck.

*Paragia hirsuta*, sp. n.

♂. Niger: clypeo (lateribus apiceque exceptis), macula interantennali, mandibulis basi, oculis margine interno linea brevi, macula postoculari, pronoto angulis, mesopleuris, mesonoto, scutelloque lateribus maculis flavis; tegulis ferrugineis; abdomine nigro, segmento secundo dorsali irregulariter, segmento tertio et dorsali et ventrali apice, segmentoque quarto dorsali apice anguste flavo-fasciatis; segmentis quinto sextoque apice ferrugineo fasciatis, segmento septimo omnino ferrugineo; pedibus nigris; tibiis tarsisque ferrugineis, femoribus intermediis apice flavo variegatis; alis hyalinis, margine costali infuscato.

The yellow fascia on abdominal tergite 2 is near the base of the segment.

Clypeus subtriangular, truncate; head as broad as thorax at tegulæ; mesonotal furrows arcuate, widening and approximating posteriorly; scutellum prominent, subquadrate, covering postscutellum; median segment truncate, lateral angles subtuberculate. Abdomen with the first segment considerably narrower than the second; a deep constriction is visible from a lateral view. Whole insect covered with long fulvous pubescence, least noticeable on abdominal segments 2 and 3. Punctured, head (except clypeus), thorax, and first abdominal segment coarsely, the punctures on mesonotum running into striæ; clypeus and abdominal segments 2-7 finely.

Length  $11\frac{1}{4}$  mm.

*Hab.* Cairns, N. Queensland (*F. P. Dodd*); 1 ♂.

This species comes nearest to *P. deceptor*, Sm., of which species the unique type is a female, but has the markings yellow, not reddish orange. The punctures on the mesonotum of *P. deceptor* do not run into striæ.

*Paragia perkinsi*, sp. n.

♀. Niger; antennis infra, clypeo basi, macula interantennali, oculis margine interno, macula postoculari, pronoto angulis, flavo-rufis; abdomine nigro, segmentis dorsalibus secundo et tertio lateribus apice late, segmento ventrali secundo duabus maculis flavo-rufis; segmentis dorsalibus quarto et quinto plerumque, segmento sexto omnino flavis; pedibus nigris, tibiis tarsisque ferrugineis; alis hyalinis, margine costali infuscato.

Clypeus subtruncate, as broad as long, somewhat produced towards apex; head as broad as thorax; mesonotum with two small tubercles on the disc; scutellum prominent, narrowing somewhat posteriorly, median segment with a conspicuous tubercle on each side, surface of truncation of median segment with two shallow parallel furrows.

First abdominal segment not constricted at apex. The whole covered with a sparse fulvous pubescence, most conspicuous on the legs.

Punctured, head, thorax (except median segment and postscutellum) coarsely; postscutellum, median segment (both laterally and on the surface of truncation), and first abdominal segment more finely, remaining abdominal segments very sparsely punctured.

Length  $12\frac{1}{2}$  mm. (to apex of second abdominal segment).

*Hab.* Cairns, N. Queensland (*F. P. Dodd*); 1 ♀.

I have much pleasure in naming this species after Dr. R. C. L. Perkins, by whom all three new species were presented. The species comes into my key to the genus (*Ann. & Mag. Nat. Hist.* (8) v. p. 31, 1910) after *A. b*<sup>2</sup>, the most nearly allied species being *P. odyneroides* and *P. bidens*, the two species in which the whole thorax with the exception of the pronotal angles is black. *P. perkinsi* differs from them in having the first abdominal segment at apex as broad as the second abdominal segment at base (group *Alpha*, Dalla Torre), whereas the first abdominal segment in the nearly allied species is distinctly narrower than the second, and divided from it by a constriction (group *Beta*, Dalla Torre). *P. perkinsi* is a larger insect.

LXXXVII.—*Some probable and possible Instances of Warning Characteristics amongst Insectivorous and Carnivorous Mammals.* By R. I. POCOCK, F.R.S.

THE views put forward in the following pages are an extension of those I have already published in the 'Proceedings of the Zoological Society'\* on warning attributes in porcupines and musteline carnivora.

\* *P. Z. S.* 1906, p. 902 (on porcupines); 1908, pp. 944-959 (on musteline carnivora); 1911, pp. 559-560 (on *Putorius nigripes*).